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A Needs Analysis of Computer and Network Engineering Program in Mataram Vocational Schools

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Abstract

The study is to reveal the significant different between the learning in Vocational School and in general Senior High School. The appropriate teaching-learning processes are based on their needs. The data in this study were qualitative descriptive data obtained through interviews and questionnaires. The questionnaires were distributed to the students and alumni of computer and network engineering program students. The data analyzed qualitatively. The aim of this study was to identify some factual information about the needs of vocational students in learning English, especially in the English-language skills (Listening, Speaking, Reading and Writing) and some of language components in English (Grammar & Vocabulary), and to analyze the conformity between the content of English textbooks with the vocational students' needs. The subjects in this study were the vocational students and English textbooks, both SBC and Curriculum 2013 edition, of 4 (four) SMK which organized the TKJ department in Mataram. The results showed that the needs of students towards learning English is to meet the academic professions and the future needs of the students, which involved the skills of the language and some of the language components. Whereas in the case of conformity between the content of the English textbooks and the vocational students' needs, it was found that the English textbooks was more focused on describing the English language competences generally and not directed to the Department of TKJ itself.

Keywords: Needs Analysis, English Textbooks, Vocational Schools..

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1. Introduction

In Vocational School, English is taught as foreign language, especially in the program of Computer and Network Engineering, the teacher taught English as one of skill for support to get a job after graduate from the school. Computer and Network Engineering Study Program is one of the specific skills which are provided by the vocational high schools. Computer and Network Program is a science based on Information and Communication Technology related to algorithmic capability, and computer programming, computer assembly, computer network assembly, and software operation, and internet. In Vocational

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school, the teacher teaches English for making a student good in oral and written.

In terms of English teaching, according to the BNSP or National Education Standards Agency (2006) for vocational high schools, English aims to make students proficient in both written and spoken language to support their competence in a certain study program. To reach the objective, there are some factors to consider such as teachers, media, materials, etc. Materials take important part in the process of teaching and learning. The materials give students input to develop their knowledge and improve their skills. Tasks provided within the material also help students to practice and give them exposure about English. Based on the objectives of vocational education, the English material used in the learning process should be adjusted to the study programs. It aims to fulfill the students' needs so they can maximize their skills.

Teaching materials is one of prominent component in teaching learning process. The teaching materials delivered a teacher should refer to the goals that have been outlined in the curriculum. In addition, the ideal teaching materials also suit local environmental conditions for more meaningful learning. Therefore, teachers have the freedom to develop teaching materials that will deliver so far not deviate from the goal.

As stated above, before designing an English class, teachers or curriculum designer have to be aware of students' need especially for the materials used in order to meet the goals and the objectives. It is because in SMK, students are majored in many different fields of study which deal with different needs of English. According to Dudley-Evans and John (1997:5) Needs analysis in ESP Any vocationally-oriented course must be based on the fundamental issue of "what learners need to do with English" It also indicates that the teaching of English should be based on the students' target needs, that is the situation in which the learners will use the language they are learning. Therefore, before designing a course, curriculum, syllabus and materials, the designer should pay attention to the students' needs, and one of the tools to get information about the students' needs is need analysis. Moreover, Seen as a data collection process (Nunan, 1988), needs analysis can be a vital asset for teachers of English for specific purposes (ESP) to identify learners' key requirements or needs and determine the skills they need to develop. Scholars have been debating on the focus of needs analysis. While Hutchinson and Waters (1987) consider learning needs as what the learner needs to do in order to learn, Benesch (2001: 72) perceives that needs are associated strictly with target situation demands. Some other researchers such as Taillefer, (2007) and Cowling, (2007) empirical evidence shows that the success of teaching and learning process in ESP depends much on needs analysis. It is clear thus that needs analysis can help learners adapt to the new learning system when their teachers recognize their needs of the learning process (Carkin, 2005). One obvious advantage of needs analysis is that, by identifying them learners in general, needs analysis will identify the weaknesses and strengths of the skills that they may use in potential business or academic contexts.

Besides, needs analysis has a vital role in helping the learning process. Need analysis is a fundamental principle in a centralized language learning

system. It means that, it s a learning must be responsive to the needs of students. Furthermore, needs analysis must be linked to the learning context. The learning context in question is curriculum, textbooks or textbooks, constraints faced, and learning rationalization (Tzotzou, 2014).

Furthermore, many materials provided in the English textbooks for Computer and Network Engineering in some vocational school in Mataram is not available for all the abilities and background presented by the students in their study program. They will cause language proficiency received by students will be different with cases that they will find at work if teacher still use the materials. In addition, the skills that they got might dissatisfy the stakeholders who are going to hire them after they graduate. Thus it can be said that English skills that they learn will not be useful because it does not agree with students' preferences.

To overcome this problem, teacher tries to get their own materials based on their students' based on their students' program. For example a teacher that teaches English for Computer software to help students in getting materials that they need. Unfortunately, not all the teachers do this, because all requires teachers to understand and have knowledge about almost all the fields of study at school.

For that reason, need analysis or need assessment is important to be conducted before designing materials. It is done to discover what students really need exactly in studying English. Besides, it will lead to effective learning process and avoid students from not getting what they need the most. It is because by analyzing students' needs, teachers are able to prepare the materials based on students' needs and wants.

Besides that, in a linguistic deficiency term, need is as describing the differences between what a learner can presently do in a language and what he or she should be able to do (Richard, 2001:54); wants is the learner's view as to what his/her needs area and this is cannot be ignored, bearing in mind the importance of learner's motivation in learning process (Hutchinson and Waters 1987). It can be the factors, reasons and expectation of the learner in learning goal will not be achieved. For this reasons, the aim of this study was to identify some factual information about the needs of vocational students in learning English, especially in the English-language skills (Listening, Speaking, Reading and Writing) and some of language components in English (Grammar & Vocabulary), and to analyze the conformity between the content of English textbooks with the vocational students' needs.

Furthermore, the aims of the study are 1) to identify some factual information about the needs of vocational students in learning English, especially in the English language skills (listening, speaking, reading, and writing), and some language components in English (grammar and vocabulary), and 2) to analyze conformity between the content of English textbook with the vocational students' needs.

In order to meet the objectives, the researcher, the data are collected from interview. In this point, the researcher interviewed the English teachers and alumni of the program who work in Company. Additionally, for the document

analysis, the researcher analyzed text book used in teaching English for Computer and Networking Engineering program.

2. Method

The design in this study uses descriptive qualitative. Descriptive research is the most basic type of research that describes or describes natural and non-natural phenomena. That is, the design of this study seeks to get a picture of natural problems and then the data will be described (Sukmadinata, 2011: 72). Another definition of descriptive research was also put forward by Darmadi (2011: 145) who called descriptive research a study which is non-experimental because the researcher does not control and manipulate the research variables.

Several procedures will be applied to carry out this research. First, the researcher determines the research background. From the background, problems and research objectives are identified. Then, the literature, which underlies the topic being discussed in the problem, is identified. Next, the data and literature are analyzed and interpreted. Interpretation is done using the descriptive method. Finally, conclusions and recommendations are taken based on the findings

The initial survey activities for several Vocational Schools were held on Desember 13-16, 2018 to obtain the most interesting student data. Then on 2-4 January 2019 the initial data collection was carried out to school, through a questionnaire for English teachers then to gain more understanding In depth, interviews were conducted with students and related teachers. Data was then analyzed; a literature review was conducted, to answer the research questions.

The subjects of this study were students and English textbooks for Vocational Schools, both KTSP editions and 2013 Curriculum editions, in Mataram areas (West Lombok). This study focused on students and English books used in vocational schools majoring in TKJ. TKJ Department is a department that is in the Vocational School that studies the ins and outs of computers and networks such as how to make a PC, install OS (Operating System), create a web and much more. The reason for choosing this research subject is TKJ because currently TKJ is the most desirable department for the SMK level.

The researcher took a sample of 4 Vocational Schools in Mataram regions, namely in the Mataram areas, namely Mataram Vocational High School 3, Mataram Vocational High School 7, Vocational School Muhammadiyah in Mataram, Vocational School 9 in Mataram. The English textbooks studied are: a. 1. "Communication Builder: English for Vocational School" written by Evi Kurniawan and Arief Kurniawan, publishers of the Ministry of National Education (Curriculum 2013), b. 2. "English for SMK" was written by Maria Regina Dyah Pramesti et al, publisher of the Ministry of National Education (Curriculum 2013), c. 3. "Character Education Based English" written by Otong Setiawan Djuharie, publisher of Yrama Widya (Curriculum 2013), d. 4. "Get Along with English" written by Entin Sutinah et al, publisher of Erlangga (KTSP curriculum), and e. 5. "Look Ahead: An English Course" written by M.Sudarwati and Eudia Grace, Erlangga publisher (KTSP curriculum).

3. Findings and Discussion

3.1 Student needs in learning English Language

In terms of English language proficiency, data shows that almost all students in the TKJ Department who are sampled think that speaking in English is necessary because it will help students do their jobs. However, on the other hand English teachers also stated that one of the problems in learning English is the reluctance of students to be actively involved in class, expressing their ideas. This is also revealed by Harmer (2007) who states that it is not so easy to make students dare to speak in class. The main problem is the reluctance experienced by some students to speak and actively participate in class. This is in line with Beccy (2013) who stated that the main factor that makes students reluctant to contribute in the class because they are afraid of losing face or become a joke material in front of their classmates.

In terms of language components, data shows that most students believe that grammar is something that is needed to be mastered in learning English. However, there are some students who feel that grammar is not something that is needed. The reason was revealed from the interview when some of them were asked about the same question. From interviews, the reasons for not choosing English grammar as needed were from the students' experience during Industrial Work Practices. According to them when practice does not often deal with English grammar, so they feel that at that time, English grammar was not really needed to be mastered.

This phenomenon supported by McWhorter (2012) states that for many professions, grammar is not an important skill. In other words, grammar may not be very important for certain jobs. On the other hand, in terms of English vocabulary most of them stated that they needed to master sufficient vocabulary to do work related to their fields. They argue that knowing a lot of vocabulary in English can help them do their jobs. This is in line with the opinion of Alexander (2013) that understanding increases when one masters various vocabularies. Vocabulary improves communication skills, academic competence, even their social abilities.

From the stated above, it is also supported by findings based on interviews which state that the needs of vocational students majoring in TKJ in English are those that introduce industry, the ability to communicate in general and industrial environments, and introduce vocabularies, especially to vocational terms, procedures and competencies in Computer Network Engineering in general. The findings above show that student expectations and learning situations can build learning English in meeting the needs of students effectively, especially the need for learning English to meet the needs of the academic profession and the future of students, which involves language skills and several language components

3.2 Student Needs in Textbook

The results of the analysis of the results of the textbook based on BNSP's theory indicate that: The book "Get Along with English" has a feasibility of 87.2%. Next, the book "Character Based English Language" and the book

"Communication Builder: English for Vocational School" have an eligibility of 80%. Then, the book "English for SMK" has a feasibility of 70%. Whereas the book "Look Ahead: An English Course" has a feasibility of 65%. This shows that: 1) The relationship or suitability between the textbooks of teaching materials and the English language competence of the vocational high school expected to be in line with the total score 4 of the total value of 8. 2) Despite the lack of specificity, generally SK KD in the reference book have sufficiently fulfilled and trained student language skills. However, it should be noted that most teachers respond that these 4 language skills are not carefully considered because they generally rely only on reading and writing skills, and that generally appears more frequently in reference books. The book does not meet the 4 language skills competency because it includes too many elements of text, other language skills should also be given a large portion of the exercise to make it more balanced. It is also important that the book be made more attractive with colored images so that students are happier and excited when using the book. 3) Based on interviews with 8 vocational school teachers who were the samples of this study, the books used in Vocational Schools did not fully contain material related to the student field, namely Computer Network Engineering. Therefore, 2 teachers added related Reading material from various sources. While the other 5 teachers leave without material or other enrichment.

It can be explained that the needs of Vocational School students majoring in Computer Engineering Network related to learning English are those that are in accordance with the existing SK Decree and in accordance with the syllabus studied in Computer Network Engineering. Based on the results of the interview stated that the needs of vocational students majoring in TKJ in English are those that introduce a lot of industry, the ability to communicate in general and industrial environments, and many introduce vocabularies especially to the terms, procedures, and competencies of SMK in Computer Network Engineering in general.

The description above shows that student expectations and learning situations can build learning English in meeting the needs of students effectively. Among the issues raised by students is the need for learning English to meet the needs of the academic profession and the future of students, which involves language skills and several language components. This finding supports previous research regarding student needs, as was done by Bada and Okan, 2008; Barkhuizen, 1998; Berkowitz and Nagy, 2013; and Kavaliauskiene, 2003.

In terms of accommodating the needs of students in textbooks, SMK students majoring in TKJ tend to have high motivation in their profession / field. The five books try to meet the needs of students about the possibilities of their future profession, such as Looking for A Job, Talking on the Phone, Life at Work, How do You Operate This Machine (as found in the book by Kurniawan and Kurniawan (2008); Pramesti, Pramono, and Suherman (2008); Sutinah, et al (2010)). However, not all books discuss the same topic.

In other words, the suitability of the content in the English textbook with the students' majors at the TKJ Vocational School in terms of students needs shows that the English textbook and the KD Decree formulated by the

government further outline the general and non-directed English language competencies in the TKJ itself.

3.3 Learning Method

There are other important things in learning that must be considered in the preparation of the syllabus. The thing in question is the approach, strategy, model, and method used. The four terms do have different meanings if they are understood in detail, but in general, the four can be interpreted with a meaning that is relatively the same. A learning strategy or approach is very crucial because it is the way lecturers make real efforts to achieve the expected competencies (Munthe, 2009: 53). Questionnaire for needs analysis also needs to include the learning method or approach desired by lecturers and students in language learning. That is, teachers and students are asked to choose one or more approaches or methods to be used. The approach or method in question can be an appreciative, communicative, lecture, pragmatic, or structural approach. According to the results of the questionnaire analysis, the teachers wanted different approaches and strategies for each discussion. This is understandable because choosing a method alone is certainly not successful in achieving the learning objectives. For example, the lecture method may not be suitable for use in the learning process of writing or speaking competencies. Thus, the lecturers expect the methods used to be more varied and must be centered on students (student centered learning). Data from the student questionnaire analysis also showed similar results. Although it does not explicitly and clearly mention the type of learning method, it can be captured that students want an interesting learning method. The interesting meaning here is the desire of students who hope to enjoy the process of learning English without being infected by boredom or sleepiness. This is certainly a signal for the lecturers to try to design their learning to be more interesting and easily understood by students. Some students also stated that the presentation method is not always good to be used in certain discussions. For material about speaking academically or public speaking, this presentation method can be used as an alternative choice in learning.

4. Conclusion

This research was conducted to find factual information about the needs of vocational school students majoring in TKJ, and to find out the scope of textbooks used in accommodating the needs of vocational students in learning English.

Needs of Vocational School students majoring in Computer Engineering Network towards those related to learning English are those that are in accordance with existing SK Decree and in accordance with the syllabus studied in Computer Network Engineering. However, based on the results of the interview it was stated that the needs of vocational students majoring in TKJ in English were those that introduced the industrial world, the ability to communicate in general and industrial environments, and many introduced vocabulary especially to the terms, procedures, and competencies of SMK in Computer Network Engineering in general .

Conformity between the content in English textbooks with student majors at Vocational School TKJ in terms of students needs is an English textbook and KD Decree formulated by the government to better describe English competence in general and not directed in the TKJ department itself. This is likely to be reflection of the Standard Competence itself, namely Communicating in English at the Novice level. Communicating at the beginner level means that communication requires Basic English competence. Material in public communication, for example: greetings, leaving messages, expressing feelings, and expressing remorse shows that the subject matter has not been determined based on a particular department in a vocational school (SMK).

A learning strategy or approach is very crucial because it is the way lecturers make real efforts to achieve the expected competencies. Questionnaire for needs analysis also needs to include the learning method or approach desired by lecturers and students in language learning. That is, teachers and students are asked to choose one or more approaches or methods to be used. The approach or method in question can be an appreciative, communicative, lecture, pragmatic, or structural approach.

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